

CLAIMS:

1. A converter for converting an input digital signal (1) into an output digital signal (2), said converter comprising:

- a set of shift registers (121, 122, 143, 144) able to contain samples of the input or output digital signal,

5 - a calculation unit able to supply a shift signal (4) to said set of registers and comprising:

- a first storage unit (51) able to contain a value of a conversion ratio or of its inverse, so that the stored value is between 0 and 1,

- a second storage unit (52) able to contain, at a cycle time $i+1$, i being an integer, a future signal (8) equal to a sum of a current signal (7) contained in the second unit at a cycle time i and of the content of the first storage unit,

10 the shift signal resulting from an exclusive OR function (54) between a most significant bit of the current signal (71) and a most significant bit of the future signal (81).

15 2. A calculation unit able to supply a shift signal (4) to a set of shift registers (121, 122, 143, 144) of a converter converting an input digital signal (1) into an output digital signal (2) and comprising:

- a first storage unit (51) able to contain a value of a conversion ratio or of its inverse, so that the stored value is between 0 and 1,

20 - a second storage unit (52) able to contain a cycle time $i+1$, i being an integer, a future signal (8) equal to a sum of a current signal (7) contained in the second unit at a cycle time i and of the content of the first storage unit,

the shift signal resulting from an exclusive OR function (54) between a most significant bit of the current signal (71) and a most significant bit of the future signal (81).

25 3. A calculation unit as claimed in claim 2, comprising an initialization circuit (55) able to load an initialization signal (56) into the second storage unit (52) at the start of a processing of the input digital signal (1).

4. A digital television receiver comprising a converter as claimed in claim 1.

5. A method of converting an input digital signal (1) into an output digital signal (2), said method comprising a calculation step able to supply a shift signal to a set of shift

5 registers, itself comprising the substeps of:

- storage of a value of a conversion ratio or of its inverse, so that the value stored is between 0 and 1,

- addition or subtraction of the value previously stored to or from a current signal initially equal to an initialization signal, resulting from a future signal,

10 - exclusive OR between a most significant bit of the current signal and a most significant bit of the future signal.

6. A computer program able to implement the signal conversion method as claimed in claim 5, when said program is executed by a processor.

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